

### REMARKS

Claims 1 and 46 and the claims dependent thereon have been amended to further patentably distinguish the invention from the prior art. Allowable claims 8, 9, 11, 12, 20, 22, and 48 have been rewritten in independent form incorporating the limitations of the original claims upon which they depend. New claim 55 has been added dependent upon amended claim 1. Such amendments to claims are only for the purpose of expediting the prosecution of this application and are not to be construed as an abandonment of any of the novel concepts disclosed therein.

The requirement for restriction is again respectfully traversed.

Group II consist of only eight claims, and Group III consist of only four claims. Manifestly, these twelve claims may be examined on the merits with the other 42 claims the Examiner has already diligently examined. It is evident that the subject matter searched in connection with examining the claims directed to a method for processing audio signals in Group I should be searched in connection with examining the method of processing audio signals in Group II and the method for processing audio signals in Group III. Accordingly, withdrawal of the requirement for restriction is respectfully requested.

The office action states:

Claims 1, 3, and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Aylward, US Patent 6,711,266.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Aylward discloses a surround sound processing circuit in figure 13 comprising first audio signal Lt, second audio signal Rt, band pass filters 201A-201N and 202A-202N, whereby band pass filters 201A-201N divide the first audio signal into a first spectral band signal and a second spectral band signal. The spectral band signals are scaled by 101A-101N, whereby all the scaling factors A2 are proportional to the amplitude of the second audio signal. The signals are associated with directional channels (per claim 3).

Claims 1-3, 26, and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Gates, US Patent 5,251,260. Gates discloses in figure 2a an audio system comprising first and second audio signals L+R, L-R; filters 450, 472 for dividing the L-R signal into two spectral bands; and voltage controlled amplifiers 452 and 474 for scaling the first and second spectral band signals. Both scaling factors are proportional to the L-R signal and the L+R signal. Claims 1-3 and 46 are met. Pp.3-4.

This ground of rejection is respectfully traversed as least as applied to these claims as amended.

"It is well settled that anticipation under 35 U.S.C. 102 requires the presence in a single reference of all of the elements of a claimed invention." *Ex parte Chopra*, 229 U.S.P.Q. 230, 231 (BPA&I 1985) and cases cited.

"Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim." *Connell v. Sears, Roebuck & Co.*, 220 U.S.P.Q. 193, 198 (Fed. Cir. 1983).

"This court has repeatedly stated that the defense of lack of novelty (i.e., 'anticipation') can only be established by a single prior art reference which discloses each and every element of the claimed invention." *Structural Rubber Prod. Co. v. Park Rubber Co.*, 223 U.S.P.Q. 1264, 1270 (Fed. Cir. 1984), citing five prior Federal Circuit decisions since 1983 including *Connell*.

In a later analogous case the Court of Appeals for the Federal Circuit again applied this rule in reversing a denial of a motion for judgment n.o.v. after a jury finding that claims were anticipated. *Jamesbury Corp. v. Litton Industrial Prod., Inc.*, 225 U.S.P.Q. 253 (Fed. Cir. 1985).

After quoting from *Connell*, "Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim," 225 U.S.P.Q. at 256, the court observed that the patentee accomplished a constant tight contact in a ball valve by a lip on the seal or ring which interferes with the placement of the ball. The lip protruded into the area where the ball will be placed and was thus deflected after the ball was assembled into the valve. Because of this constant pressure, the patented valve was described as providing a particularly good seal when regulating a low pressure stream. The court quoted with approval

from a 1967 Court of Claims decision adopting the opinion of then Commissioner and later Judge Donald E. Lane:

[T]he term "engaging the ball" recited in claims 7 and 8 means that the lip contacts the ball with sufficient force to provide a fluid tight seal. \*\*\* The Saunders flange or lip only sealingly engages the ball 1 on the upstream side when the fluid pressure forces the lip against the ball and never sealingly engages the ball on the downstream side because there is no fluid pressure there to force the lip against the ball. The Saunders sealing ring provides a compression type of seal which depends upon the ball pressing into the material of the ring. \*\*\* The seal of Saunders depends primarily on the contact between the ball and the body of the sealing ring, and the flange or lip sealingly contacts the ball on the upstream side when the fluid pressure increases. 225 U.S.P.Q. at 258.

Relying on *Jamesbury*, the ITC said, "Anticipation requires looking at a reference, and comparing the disclosure of the reference with the claims of the patent in suit. A claimed device is anticipated if a single prior art reference discloses all the elements of the claimed invention as arranged in the claim." *In re Certain Floppy Disk Drives and Components Thereof*, 227 U.S.P.Q. 982, 985 (U.S. ITC 1985).

At least because the reference fails to disclose adjusting the first and second scaling factors related to the amplitudes of the first and second audio signals respectively to make the apparent source of sound be one of forward and rearward requires withdrawal of the section 102 rejection. And nothing in the reference suggests the desirability of modifying what is there disclosed to meet the terms of these claims.

Accordingly, withdrawal of the rejection of claims 1, 3 and 46 as anticipated by the reference is respectfully requested. If this ground of rejection is repeated, the Examiner is respectfully requested to quote verbatim at least the language in the reference regarded as corresponding to the underscored limitations in claims 1 and 46.

The office action states:

Claims 4-6, 13-19, 27, 47, 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gates in view of Kohut et al, US Patent 6,154,545. Gates does not disclose filtering the first and second signal portions by a first and second filter. Kohut et al disclose a surround sound processing system comprising a plurality of input channels (see figures I A) including a left surround channel and right surround channel, both channels of which are subject to head related transfer

function processing (which are filters). See figure 3. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Gates to filter the L+R and L-R signals, which are surround sound channels, as taught by Kohut et al for the purpose of enhancing the surround sound effects. As to claims 5 and 13, it was obvious to scale the signals in question by the claimed formula for the express intent of balancing the magnitudes of the signals. As to claim 27, balancing magnitudes would have included summing the scaling factors to one. Per claims 6 and 15, head related transfer functions inherently have frequency responses and time delay effects similar to that of a human head. As to claims 16-19, the I-IRTF elements base their responses on sound waves arriving from the front and the rear of the human head. It would have been obvious to one of ordinary skill in the art at the time of invention that the combination of Gates and Kohut would be modified according to which sound waves from the signals are to be placed in front of the user or to the rear of the user. Per claim 54, HRTF processing would automatically delay one signal with respect to the other. Pp. 4-5.

This ground of rejection is respectfully traversed.

"The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

"Although the Commissioner suggests that [the structure in the primary prior art reference] could readily be modified to form the [claimed] structure, '[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.'" *In re Laskowski*, 10 U.S.P.Q. 2d 1397, 1398 (Fed. Cir. 1989).

"The claimed invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 U.S.P.Q. 481, 488 (Fed. Cir. 1984).

"Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings of references can be combined *only* if there is some suggestion or

incentive to do so." *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984) (emphasis in original, footnotes omitted).

"The critical inquiry is whether 'there is something in the prior art as a whole *to suggest* the desirability, and thus the obviousness, of making the combination. [citing *Lindemann* with emphasis added.]" *Fromson v. Advance Offset Plate, Inc.*, 225 U.S.P.Q. 26, 31 (Fed. Cir. 1985).

As the Federal Circuit Court of Appeals said in *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999):

Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the invention can be understood may prompt one 'to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.'

And in *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1316 (Fed. Cir. 2000), the Court said:

[I]dentification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *See id.* [*Dembiczak*]. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. *See In re Dance*, 160 F.3d 1339, 1343, 48 U.S.P.Q.2d 1635, 1637 (Fed. Cir. 1998), *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. *See B. F. Goodrich Co. v. Aircraft Braking Sys. Corp.*, 72 F.3d 1577, 1582, 37 U.S.P.Q.2d 1314, 1318 (Fed. Cir. 1996).

Nothing in the primary and secondary references suggests the desirability of combining what is there disclosed to meet the limitations of these claims. Accordingly, withdrawal of the rejection of these claims on these references is respectfully request. If this ground of rejection is repeated, the Examiner is respectfully requested to quote verbatim the language in the references regarded as corresponding to each limitation in these rejected claims and quote verbatim the language in the references regarded as suggesting the desirability of combining what is there disclosed to meet the limitations of these claims.

The allowability of claims 8, 9, 11, 12, 20-22, 23, 48 and 49 is noted, and claims 8, 9, 11, 12, 20, 22, and 48 have been rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The courtesy of the Examiner in conducting a diligent search is acknowledged with appreciation. The reference cited by not applied is submitted to be incapable of anticipating, suggesting or making obvious the subject matter as a whole of the invention disclosed and claimed in this application.

In view of the forgoing amendments, authorities, remarks and the inability of the prior art to anticipate, suggest or make obvious the subject matter as a whole of the invention disclosed and claimed in this application, withdrawal of the requirement for restriction and action on the merits of the withdrawn claims is respectfully requested along with a notice of allowance in the absence of prior art that bars the patentability of the withdrawn claims. If the Examiner believes the application is not in a condition for allowance, he is respectfully requested to telephone the undersigned attorney at 617-521-7014 to discuss what additional steps he believes are necessary to place the application in a condition for allowance.

Enclosed is a \$400 check for excess claim fees and a \$120 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050, Order No. 02103-413001.

Respectfully submitted,  
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